

Date: Wednesday, 1/24/2007 4:46:04 PM  
User: Kim Johnston

## Process Sheet

Customer	CU-DAR001 Dart Helicopters Services	Drawing Name	HIGH AFT X-TUBE 412		
Job Number	30427	Part Number	D412664203		
Estimate Number	10559	Drawing Number	D412-664-243 REV C		
P.O. Number	N/A	Project Number	N/A		
This Issue	1/24/2007	Type	LANDING GEAR	Material	C
Prsht Rev.	NC	Drawing Revision	C		
First Issue	N/A	Due Date	2/28/2007		
Previous Run	30426	Qty:	1	Um:	Each
Written By					
Checked & Approved By	JL 07.01.25				
Comment	Est Rev:E 04.02.16 Reformat; Added D3189-1 K/DS Est Rev:F 06-03-29 Remove Coments on Pick List JLM est rev G 06.12.08 per ECN 886 EC				
Additional Product					
Job Number:					
Seq. #:	Machine Or Operation:	Description :			
1.0	DC	DOCUMENT CONTROL			
		 <span style="float: right;">(1)</span>			
Comment: DOCUMENT CONTROL Photocopy bluefile and create labels as per PPP D412-664-203 CHG 005 ✓ KS 07.05.04					
2.0	D6009129	Crosstube Material			
		 <span style="float: right;">(2)</span>			
Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s) Pick: Qty Part number Description Batch 1 D6009-129 Crosstube <u>B26548</u> Check OD = 3.500"; ID = 2.250" <span style="float: right;">mk 07/02/01</span>					
3.0	MORI SEIKI	MORI SEIKI CNC LATHE LARGE			
		 <span style="float: right;">(3)</span>			
Comment: MORI SEIKI CNC LATHE LARGE 1-Fill tube with sand & install plugs DT8534 on both ends as per Folio FA166 2-Turn first side as per Folio FA166 3-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D412-664-243. <span style="float: right;">(4)</span> <u>07/02/01</u>					
4.0	QC1	INSPECT ALL DIM TO DIM SHEET			
		 <span style="float: right;">(5)</span>			
Comment: INSPECT ALL DIM TO DIM SHEET <span style="float: right;">(6)</span> <u>07/02/01</u>					

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 1/24/2007 4:46:04 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services	Drawing Name: HIGH AFT X-TUBE 412	
Job Number: 30427	Part Number: D412664203	
Job Number:		
Seq. #:	Machine Or Operation:	Description :
5.0	MORI SEIKI	MORI SEIKI CNC LATHE LARGE
Comment: MORI SEIKI CNC LATHE LARGE		
1-Turn second side as per Folio FA166		
2-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D412-664-243.		
3- Remove sand and plugs		
4-Scribe part # and batch # using vibrating stylus as per Dwg D412-664-243 engrave on outside of tube)		Inside of Cuff(Donot
6.0	QC1	INSPECT ALL DIM TO DIM SHEET
Comment: INSPECT ALL DIM TO DIM SHEET		07/02/02
7.0	QC8	SECOND CHECK
Comment: SECOND CHECK		SD 07.02.05
8.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
Comment: LANDING GEAR RESOURCE 1		DP/07-02-07
1-Polish entire outside surface of crosstube		
9.0	QC5	INSPECT WORK TO CURRENT STEP
Comment: INSPECT WORK TO CURRENT STEP		DP 7-2-7
10.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
Comment: HAND FINISHING RESOURCE #1 Chemical Conversion Coat as per QSI 005 4.1		DP/07-02-07
11.0	QC3/5	INSPECT WORK/WING WALK
Comment: Inspect work & Chemical conversion Coat		DP 7-2-7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 1/24/2007 4:46:04 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH AFT X-TUBE 412

Job Number: 30427

Part Number: D412664203

Job Number:



Seq. #: Machine Or Operation:

Description :

12.0 BENDING BENDING MACHINE



Comment: BENDING MACHINE

Bend tube as per Dwg D412-664-243 using CNC bender program 412-af and Folio FT010

EL / FT 7-3-7

13.0 QC6 DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

JD 07/03/08

14.0 LANDING GEAR 1 LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Drill pilot holes in tube as per Dwg D412-664-243 using drill Jig DT8550 & DT8551

2-Ream hole to finish size in tube as per Dwg D412-664-243 using drill Jig DT8550 & DT8551. Check dimensions between holes, both sides on both cuffs, to ensure alignment with saddle holes.

3-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D412-664-243

15b 7-3-8

15.0 HAND FINISHING1 HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

JD 7-3-8

16.0 QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



Jo703-28

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

17.0 QC5 INSPECT WORK TO CURRENT STEP



Jo703-28

Comment: INSPECT WORK TO CURRENT STEP

18.0 OUTSIDE SERVICE OUTSIDE SERVICES



Comment: Sub-Contracting OUTSIDE SERVICES

Liquid Penetrant Inspection as per QSI 038Or

Issue P/O: 3440 LPI as per ASTM 1417

Level 2 Attach copy of NDT results to work order

C 0703/28 ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 1/24/2007 4:46:04 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services		Drawing Name: HIGH AFT X-TUBE 412
Job Number: 30427		Part Number: D412664203
Job Number: 		
Seq. #:	Machine Or Operation:	Description :
19.0	PACKAGING 1 	PACKAGING RESOURCE #1 
	Comment: PACKAGING RESOURCE #1 Inspect for transit damage Ensure copy of NDT results attached to work order.	<i>c 26/03/30 ①</i>
20.0	QC5 	INSPECT WORK TO CURRENT STEP <i>26/04/02 ①</i>
	Comment: Inspect for damage & ensure results are as per Dwg D412-664-203	
21.0	SPRAY PAINTING 	SPRAY PAINTING 
	Comment: SPRAY PAINTING 1-Prime inside and outside crosstube as per QSI 005 4.2 2-Paint outside crosstube with White Imron as per QSI 005 4.2	<i>SPR 26/04/02 ①</i>
22.0	QC14 	Inspect Spray Paint <i>26/04/17 ①</i>
	Comment: Inspect Spray Paint Wrap in plastic bag to protect from scratches	
23.0	D2856600 	Abrasion Strip 
	Comment: Qty.: 1.7640 f(s)/Unit Total : 1.7640 f(s) Pick: Qty Part number Description Batch 2 D2856-600(Cut to 10.090") Abrasion Strip <u>26650</u> <i>ml 07/07/09</i>	
24.0	D28961 	Support 
	Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s) Pick: Qty Part number Description Batch 1 D2896-1 Support <u>30200</u> <i>et 07.07-19</i>	
25.0	D31891 	Chafing Shield 
	Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s) Pick: Qty Part number Description Batch 2 D3189-1 Chafing Shield <u>31147</u> <i>ml 07 07 09</i>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 1/24/2007 4:46:04 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services		Drawing Name: HIGH AFT X-TUBE 412
Job Number: 30427		Part Number: D412664203
Job Number:		
Seq. #:	Machine Or Operation:	Description :
26.0	MS2192028	Clamp(per MIL-DTL-8783C) 
		
Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)		
Pick: Qty Part number Description Batch 4 MS21920-28 Clamp <u>102534X1/103896X3</u>		<i>ml 070709</i>
27.0	MS2192032	clamp(per MIL-DTL-8783C) 
		
Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)		
clamp(per MIL-DTL-8783C) batch: <u>102931</u>		<i>BT 07-07-19</i>
28.0	D2732	Rubber Extrusion 
		
Comment: Qty.: 1.0290 f(s)/Unit Total : 1.0290 f(s)		
Rubber Extrusion		
Cut qty 2 5.80" long qty part # description batch 2 D2732-058 rubber cushion <u>32894</u>		<i>ml 070722</i>
29.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1 
		
Comment: LANDING GEAR RESOURCE 1 Assemble as per Dwg D412-664-203		<i>magnabond B104723</i>
Instal support with magnabond 6398 per dwg D412-664-203, cure for 12hrs before packaging.		<i>BT 07-07-19</i>
Time & date of application: <u>1:30 27-07-19</u>		
30.0	QC5	INSPECT WORK TO CURRENT STEP 
		
Comment: INSPECT WORK TO CURRENT STEP		<i>En 07/07/24 4/1</i>
31.0	PACKAGING 1	PACKAGING RESOURCE #1 
		
Comment: PACKAGING RESOURCE #1 Pick Packing Kit		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 1/24/2007 4:46:05 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH AFT X-TUBE 412

Job Number: 30427

Part Number: D412664203

Job Number:



Seq. #: Machine Or Operation:

Description :

32.0 AN640A Bolt



*JP*



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Bolt

Batch: M103446 (2x) M103177 (2x)

33.0 AN641A Bolt



*JP*



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Bolt

Batch: M100743 (2x) M101428 (2x)

34.0 AN960JD616 Washer



*JP*



Comment: Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)

Washer

Batch: M103641

35.0 MS21042L6 Nut



*JP*



Comment: Qty.: 6.0000 Each(s)/Unit Total : 6.0000 Each(s)

Nut

Batch: M101660

36.0 QC4 INSPECT 100% KITS FOR COMPLETENESS



*Or 07/25*

*JP 07/25/2007*

Comment: INSPECT 100% KITS FOR COMPLETENESS

37.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D412-664-203

\*\*\*\*\*Ensure tube is not packaged if curing time is less than 12 hrs, see step 27 for application time & date  
\*\*\*\*\*

Time & date of packaging: 07/07/05

Location: 6

PPP Rev: 6

*07/07/05 2210 AM*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes  No  DQA:  Date: 01/07/06  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 1/24/2007 4:46:05 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: HIGH AFT X-TUBE 412

Job Number: 30427

Part Number: D412664203

Job Number:



Seq. #:

Machine Or Operation:

Description :

38.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*QC21*

Job Completion



*u 1/24/07.25*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	30427
Description: Crosstube Assembly (412 High Aft)	Part Number:	D412-664-243
Inspection Dwg: D412-664-243 Rev: B		Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

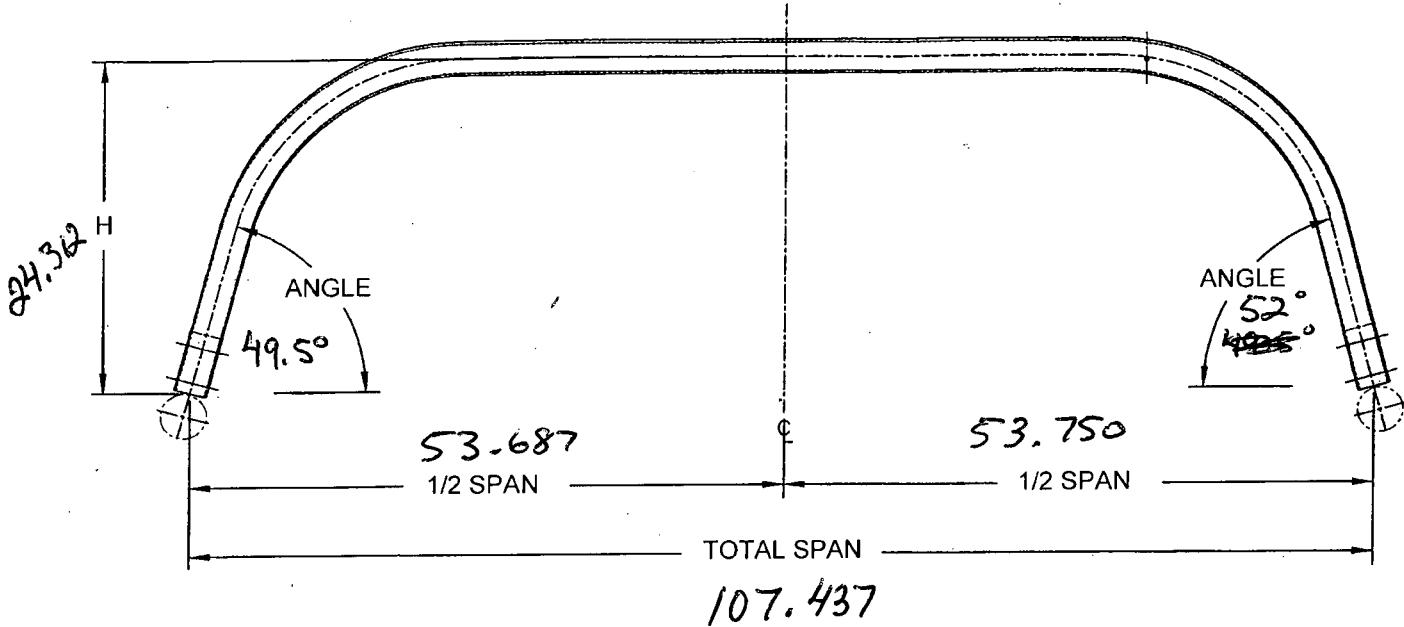
First Article  Prototype

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	2.684	+0.005/-0.000	2.689	/		
	2.748	+0.005/-0.000	2.753	/		
	2.884	+0.005/-0.000	2.888	/		
	3.019	+0.005/-0.000	3.024	/		
	3.163	+0.005/-0.000	3.167	/		
	3.308	+0.005/-0.000	3.319	/		
	3.429	+0.005/-0.000	3.433	/		
	2.990	+0.005/-0.000	2.998	/		
	2.618	+0.005/-0.000	2.622	/		
	0.200	+/-0.010	0.210	/		
	R0.063	+/-0.010	0.063	/		
	R0.500	+/-0.010	0.500	/		
	4.971	+/-0.001	4.971	/		
SIDE B	2.684	+0.005/-0.000	2.689	/		
	2.748	+0.005/-0.000	2.753	/		
	2.884	+0.005/-0.000	2.889	/		
	3.019	+0.005/-0.000	3.024	/		
	3.163	+0.005/-0.000	3.168	/		
	3.308	+0.005/-0.000	3.312	/		
	3.429	+0.005/-0.000	3.431	/		
	2.990	+0.005/-0.000	2.992	/		
	2.618	+0.005/-0.000	2.622	/		
	0.200	+/-0.010	0.210	/		
	R0.063	+/-0.010	0.063	/		
	R0.500	+/-0.010	0.500	/		
	4.971	+/-0.001	4.971	/		
	124.09	+/-0.020	124.09	/		

Measured by:	<i>Sp</i>	Audited by:	<i>SD</i>	Prototype Approval:	N/A
Date:	07/02/02	Date:	07.02.02	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.06.16	New Issue (P/O D412-664-203)	KJ/JLM	
B	06.03.09	Dwg Rev updated	KJ/JLM <i>SP</i>	<i>SD</i>

## Crosstube Bend Dimension Sheet



PART NUMBER: A412664203

BATCH NUMBER: 30427

DRAWING: A412664243 REVISION: C

H: 24.37

1/2 SPAN: 53.72

TOTAL SPAN: 107.44

ANGLE: 50°

QC 15: AD

DATE: 07/03/08

QTY: 1

*Fit in table jig*

**DART**

DESIGN <i>PH</i>	DRAWN BY <i>BS</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>PH</i>	APPROVED <i>SH</i>	DRAWING NO. D412-664-243	REV. C SHEET 1 OF 3
DATE 06.10.27		TITLE CROSSTUBE ASSEMBLY (412 HI AFT) NTS	SCALE
A	01.10.17	NEW ISSUE	
B	05.02.04	ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	
C	06.10.27	REMOVE D2856-600-1087, ADD D2732-058 & MAGNOBOND 6398 MS21920-32 WAS MS21920-30	

RELEASED

dc 4-28-17

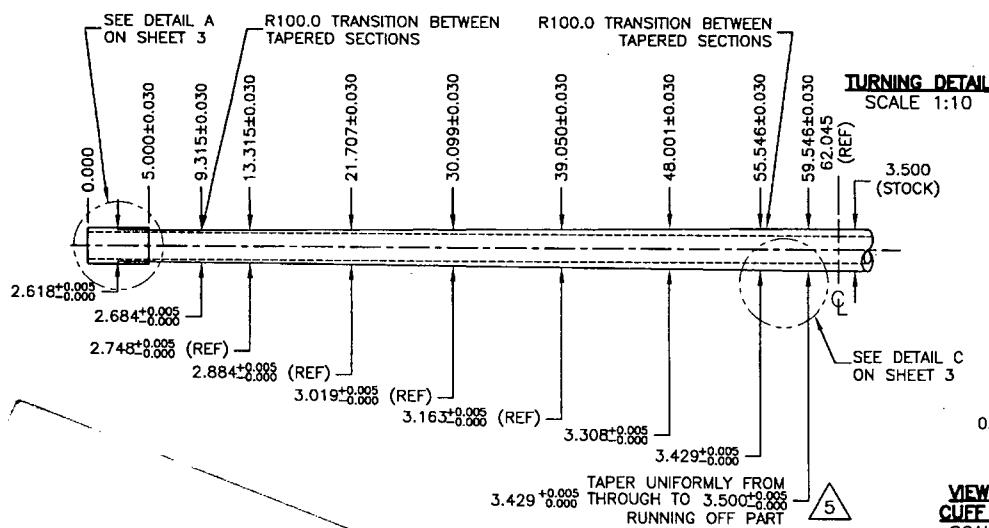
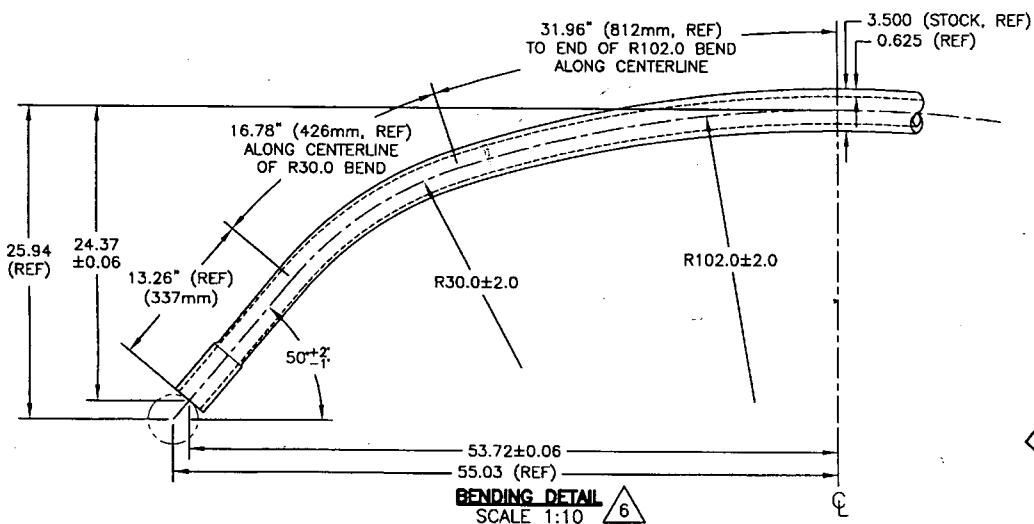
**PARTS LIST:**

Qty	Part Number	Description
X	D412-664-243	CROSSTUBE ASSEMBLY (412 HIGH AFT)
1	D6009-129	CROSSTUBE
2	D2732-058	RUBBER CUSHION
1	D2896-1	SUPPORT
2	D2856-600-1009	ABRASION STRIP
4	MS21920-28	CLAMP
2	MS21920-32	CLAMP
2	D3189-1	CHAFING SHIELD
A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

**GENERAL NOTES:**

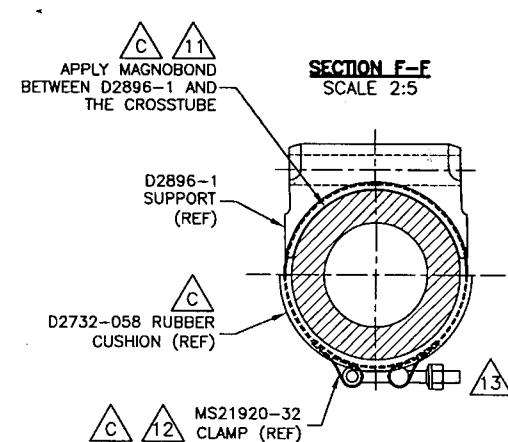
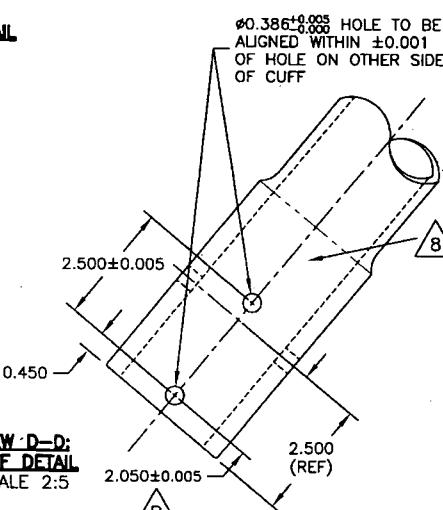
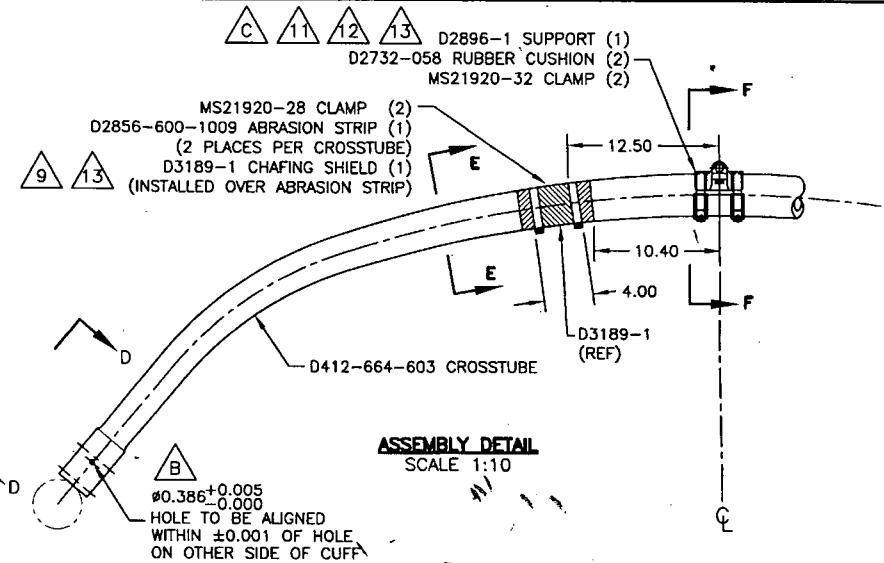
- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 2) MATERIAL: MANUFACTURED FROM D6009-129  
FINISHED LENGTH =  $124.09 \pm 0.020$
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART 005 4.2
- 4) PART IS SYMMETRIC ABOUT CENTERLINE.
- 5) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 6) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 7) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 8) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS.
- 9) INSTALL D2856-600-1009 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE PER QSI 035.
- 10) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 11) APPLY A 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2896-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR PACKAGING.
- 12) INSTALL MS21920-32 CLAMPS WITH D2732-058 RUBBER CUSHIONS TO SECURE D2896-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE CROSSTUBE SUPPORT.
- 13) TORQUE CLAMPS 80 TO 100 IN-LB.

SHOP COPY  
RETURN TO  
ENGINEERING  
CONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. *30427*



UNCON  
EN  
RET  
SHOP

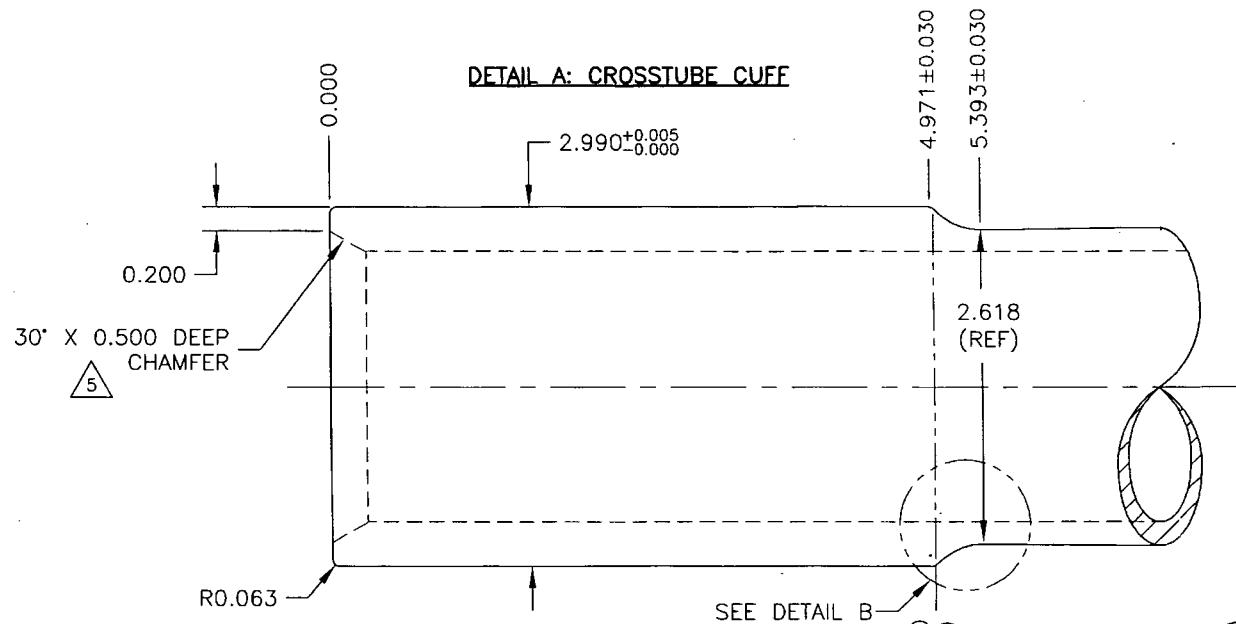
VIEW D-D:  
CLIFF DETAIL  
SCALE 2:5



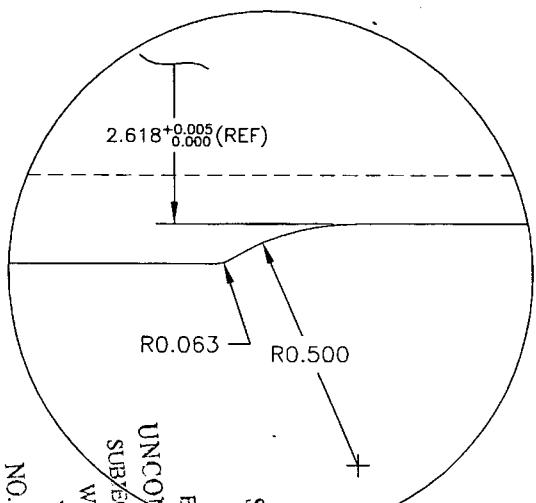
COPYRIGHT © 2001 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL  
AND IS SHIPPED ON THE EXPRESS CONDITION  
THAT IT IS NOT TO BE USED FOR ANY PURPOSE  
OR COPIED OR COMMUNICATED TO ANY OTHER  
PERSON WITHOUT WRITTEN PERMISSION FROM  
DART AEROSPACE LTD.

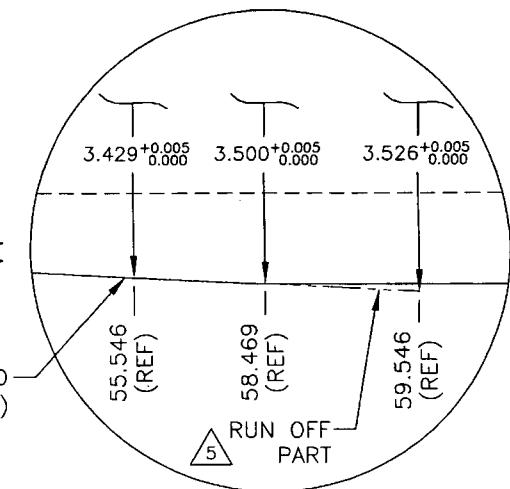
DESIGN	DRAWN BY	DART	DART AEROSPACE LTD. HAWKSBURY, ONTARIO, CANADA
PH	BS		REV. C
CHECKED PH	APPROVED PH	D412-664-243	SHEET 2 OF 3
DATE 06.10.27	TITLE CROSSTUBE ASSEMBLY (412 HI AFT)	SCALE 1:10	



RELEASED  
06.11.28



**DETAIL B: CUFF TRANSITION**  
SCALE 4:1



NO. 32727  
WORK ORDER  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
UNCONTROLLED COPY  
ENGINEERING  
RETURN TO  
SHOP COPY

COPYRIGHT © 2001 BY DART AEROSPACE LTD.  
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL  
AND IS SUPPLIED ON THE EXPRESS CONDITION  
THAT IT IS NOT TO BE USED FOR ANY PURPOSE  
OR COPIED OR COMMUNICATED TO ANY OTHER  
PERSON WITHOUT WRITTEN PERMISSION FROM  
DART AEROSPACE LTD.

DESIGN PH	DRAWN BY AB	<b>DART</b>	DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA
CHECKED PH	APPROVED OT	DRAWING NO. D412-664-243	REV. C SHEET 3 OF 3
DATE 06.10.27		TITLE CROSSTUBE ASSEMBLY (412 HI AFT)	SCALE 1:1



# HeathAir

INTERNATIONAL (1991) INC.

681 Ave. Lepine, Dorval, Québec H9P 1G3  
Tél.: (514) 636-1000 • Fax: (514) 636-0031

W.O. № 36061

A.M.O. Number: 46/90

## NON-DESTRUCTIVE TESTING REPORT

### AIRCRAFT / COMPONENT INFORMATION

REGISTRATION:

MODEL/TYPE:

SERIAL NUMBER:

TOTAL HR/LDG:

OPERATED BY:

BASED AT:

### INSPECTION REQUIREMENTS

Carry out FPI of seven (7) cross tubes (external surface) as per ASTM E-1417-05 and the Dart QSI 038, Section 4.1.1 (on file at client) - parts delivered to HeathAir.

Qty. (2) P/N D412-664-145 S/N's B31137 & B31138  
Qty. (1) P/N D206-667-103 S/N B30428  
Qty. (2) P/N D412-664-203 S/N's B30427 & B30425  
Qty. (2) P/N D206-667-101 S/N's B30439 & B30437

RADIOGRAPHY

ULTRASONIC

PENETRANT

MAGNETIC PARTICLE

EDDY CURRENT

### INSPECTION REPORT

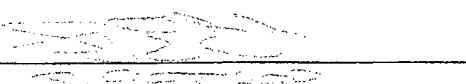
Fluorescent penetrant inspection was performed in accordance with the above requirements on seven (7) cross tubes.

Note: A Level 3 penetrant was substituted for the requested Level 2 (3 is more sensitive)  
Ardrox 970P25E Batch #04B503.

Seven (7) cross tubes PASSED inspection.

THE MAINTENANCE DESCRIBED ABOVE HAS BEEN PERFORMED IN ACCORDANCE WITH  
THE APPLICABLE STANDARDS OF AIRWORTHINESS

March 29, 2007  
DATE

INSPECTED BY: 

INSPECTION  
STAMP(S) Not Required

### CUSTOMER INFORMATION

CUSTOMER: Dart Aerospace

P.O. NUMBER

3440

ADDRESS:

CONTACT NAME:

LABOUR	@	\$
MATERIALS	@	
TRAVEL EXPENSES	@	GST
HOTEL EXPENSES	@	PST

INVOICE NO.

TOTAL \$